Bill Brewer
Granville Site Technical Committee
10805 Cahill Road
Raleigh, NC 27614

Via Express Mail

January 7, 2003

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K.A.
1/16/03

Mr. Kevin Adler, Remedial Project Manager
U S. Environmental Protection Agency, Region 5
Office of Superfund, Remedial & Enforcement Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

See notes

Subject: Granville Solvents Site Removal Action Quarterly Progress Report – Fourth Quarter 2002

Dear Mr. Adler:

I have enclosed two copies of the Fourth Quarter 2002 Report for the Removal Action at the Granville Solvents Site on behalf of the Granville Solvents Site PRP Group. Copies have been sent to the following individuals:

1. Mr. Steve Acree, U.S. EPA
2. Mr. Fred Myers, Ohio EPA
3. Mr. Joe Hickman, Manager, Village of Granville

If you have any questions regarding this report, please contact me at (919) 668-3218.

Regards,

Bill Brewer

William S. Brewer, Ph.D.
Granville Technical Committee Chair

cc: Peter Felitti, Regional Counsel, US EPA
Ben Pfefferle, Chairman, GSS PRP Group
Granville Technical Committee
G. Myers, Metcalf & Eddy
T. Struttmann, Sharp & Associates

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GRANVILLE SOLVENTS SITE
REMOVAL ACTION QUARTERLY REPORT
FOR OCTOBER, NOVEMBER and DECEMBER, 2002

JANUARY 2003

Pursuant to the requirement set forth in the Administrative Order by Consent (AOC, September 7, 1994) between the U.S. EPA and the Granville Solvents Site (GSS) Potentially Responsible Parties (PRP) Group, in Section 2.5 – Reporting, and in a letter dated November 14, 1996, from Ms. Diane Spencer (U.S. EPA), this report constitutes the quarterly written progress report concerning actions undertaken pursuant to the AOC.

I. PROGRESS MADE DURING REPORTING PERIOD

Source Area Groundwater Control

The groundwater pumping and treatment system operated 736 hours in October, 720 hours in November, and 744 hours in December, for a total of 2,200 hours (99.64% of the total hours available) during the fourth quarter of 2002. Since operation of the treatment system began in December 1994, the system has been operating over 98.8% of the available time.

During the fourth quarter of 2002, the treatment system processed approximately 8.8 million gallons of water in October, 9.1 million gallons of water in November, and 6.9 million gallons of water in December for a total of 24.86 million gallons of water for the quarter. Since operation began in December 1994, the system has processed more than 948.24 million gallons of water.

During the fourth quarter of 2002, Metcalf & Eddy collected monthly air pressure measurements in the air-stripping unit's inlet and exhaust ducts to calculate airflow values. The airflow rate during the month of October averaged 2059 cfm, 1979 cfm in November, and 2173 cfm in December. Acid washing of the treatment system had been completed in early October.

M&E continued to perform scheduled monthly maintenance on the treatment system to ensure that the system is performing at maximum efficiency with decreased unscheduled downtime. Maintenance included replacing bag filters, lubricating the transfer pump and blower motors, and maintaining the flow meters and level sensors.

Water samples were collected from the system's influent and effluent sampling ports on October 15, November 14, and December 11, 2002. Analytical results are listed in Table 1.

Extraction well GSS-EW1 was operated at an average flow rate of approximately 80 gallons per minute (gpm) during the fourth quarter of 2002 until pump/motor failure occurred on December 13. GSS-EW2 was operated at an average flow rate of approximately 115 gallons per minute (gpm) during the period. The total pumping rate from the two wells averaged 187.4 gpm for the fourth quarter of 2002 – 205 gpm for the month of October, 205 gpm for the month of November, and 154.7 gpm for the month of December. The lower pumping rate observed in December was due to the declining performance of GSS-EW-1 prior to pump failure. Following pump failure, the pumping rate of the remaining pump, GSS-EW2, was increased to ensure capture of the groundwater VOC plume.

EW-2 failed, not EW-1.

TABLE 1

VOCs	Influent October 15	Effluent Oct. 15	Influent November 14	Effluent November 14	Influent December 11	Effluent December 17
1,1,1-trichloroethane	10.5 µg/l	ND	12.2µg/l	ND	12.2 µg/l	ND
Cis-1,2-dichloroethene	3.0 µg/l	ND	2.9µg/l	ND	2.9 µg/l	ND
Tetrachloroethene	13.0 µg/l	ND	15.3 µg/l	ND	14.4 µg/l	ND
Trichloroethene	13.4 µg/l	ND	114.7 µg/l	ND	14.7 µg/l	ND
1,1-dichlcroethylene	ND	ND	ND	ND	ND	ND

→ 14/1 ppb actual

The data in Table 1 represent groundwater treatment influent and effluent concentrations measured during the fourth quarter of 2002. Approximately 24.86 million gallons of water were processed in the fourth quarter of 2002. Based on these data, approximately 0.13 lb/day in October, 0.14 lb/day in November and 0.10 lb/day in December of total VOCs were discharged to the atmosphere during the reporting period.

Groundwater Monitoring Plan

Groundwater level measurements were collected on October 15, November 14, and December 11, 2002. These data were used to develop potentiometric surface maps with the map developed with the November 12, 2002 data attached to this report.

Suite of semi-annual groundwater samples were collected on November 4th and 5th, 2002 from the monitoring well network.

Source Area Soils

Sharp and Associates, Inc. (SHARP) continued operation of the air injection/air sparging/ and soil vapor extraction (AI/AS/SVE) system during the fourth quarter 2002. An additional 38 pounds of total VOCs were removed from the source area soils during the fourth quarter of 2002. To date, approximate[redacted] pounds of total VOCs (based upon SUMMA data results and PID readings) have been removed with the SVE/AS/AI system. Mass removal estimates were corrected after data from SUMMA canister samples collected on September 27, 2002 were analyzed. The removal rate has been maintained well below the de minimis value of 10 lb/day throughout the quarter.

System maintenance followed procedures outlined in the Removal Action Operations and Maintenance Manual (Sharp, October 26, 2001). One of the two SVE blowers failed in November but adequate airflow through the system was maintained by switching to an alternate blower that will remain in operation until the failed blower is replaced. In December the air sparging compressor motor failed and a replacement motor has been ordered.

Active or Completed Tasks

The following specific tasks were completed during the reporting period:

- Collected water samples on October 15, November 14 and December 11, 2002 from the groundwater treatment system influent and effluent sampling ports.
- Collected water level measurements on October 15, November 14 and December 11, 2002.
- Collected groundwater treatment system airflow data on a monthly basis.
- Collected the semi-annual suite of samples from the monitoring well network on November 4 and 5, 2002.
- Pricing and scheduling pump replacement for [redacted] EW-1? in test.
- Troubleshooting issues with the air stripper demister.
- The upper clay/silt layer beneath the cover was hydrated in December 2002.
- SVE blower #1 went down in November and a replacement has been ordered. SVE blower # 2 has been used to maintain SVE performance.
- The air injection system was operated on a 12-hour on/12-hour off cycle.
- The air sparging system compressor motor failed on December 5, 2002.

II. DELIVERABLES (CURRENT PERIOD AND NEXT PERIOD)

Current Period:

Deliverable	Due Date	Delivered
Quarterly Report	January 7, 2003	January 7, 2003

Next Period:

Deliverable	Due Date
Quarterly Report	April 7, 2003

III. DIFFICULTIES ENCOUNTERED & RESPONSE ACTIONS TAKEN THIS PERIOD

- Pump failure – GSS-EW-2. Pumping rate at EW-1 was increased to maintain groundwater capture. A new pump has been ordered and a contractor has been retained to replace the existing pump.

- The air stripper demister is not working at full capacity. A new one has been ordered and a contractor retained to replace existing unit.

- SVE blower # 1 is down and awaiting replacement. Initially the manufacturer estimated that the blower would be delivered the last week of November 2002. SVE blower # 2 will remain in operation until blower # 1 can be replaced.

- The air sparging compressor motor faulted on December 5, 2002.

failed

IV. ANTICIPATED ACTIVITIES DURING NEXT REPORTING PERIOD

During the next reporting period, the following tasks will be performed:

- Collect potentiometric surface data on a monthly basis.
- Sample the groundwater treatment system influent and effluent water on a monthly basis.
- Perform scheduled maintenance of the groundwater treatment system
- Collect the quarterly suite of samples from the groundwater monitoring network.
- Replace the pump in GSS-EW2. Check # 1 a150 ?
- Replace the demister in the air stripper
- Continued operation, maintenance, and monitoring of the SVE, AS, and AI systems.
- Replace SVE blower # 1.
- Replace the air sparging compressor motor.
- Collect whole air sample.

LEGEND

- MONITOR WELLS
- AIR MONITORING STATIONS
- EXTRACTION WELLS
- VILLAGE PRODUCTION WELLS
- OBSERVATION WELL
- ELEV. NOT USED

Nonresponsive map showing municipal well locations

898
897
895
896

SCALE IN FEET
0 100' 200'

Metcalf & Eddy

GRANVILLE SOLVENTS SITE

POTENTIOMETRIC SURFACE
November 14, 2002

GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
POTnov02	JP	JAW	–	016688	1

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